

# **[METHOD FOR ASSIGNING DOWNLINK RADIO FREQUENCIES IN A FREQUENCY- REUSING RADIO COMMUNICATIONS SYSTEM]**

## **Abstract of Disclosure**

A method for assigning downlink radio frequencies in a frequency-reusing radio communications system compares received signal strengths of radio frequencies to a predetermined threshold value, and assigns a radio frequency as a downlink radio frequency of a transmitter of a radio port if the received signal strength of the radio frequency is less than or equal to the predetermined threshold value. The threshold can be increased if no downlink radio frequency is assigned to the transmitter of the radio port. Radio ports that request a downlink radio frequency assignment can be queued, and downlink radio frequencies can be assigned until the queue of radio ports is empty. Downlink radio frequencies can also be assigned to radio ports by waiting until radio ports are not being used by a subscriber unit, or mobile phone user.